(54) Title: DEVICE FOR AUTOMATICALLY GENERATING A GAME RESULT BASED ON AT LEAST ONE WEATHER CONDITION
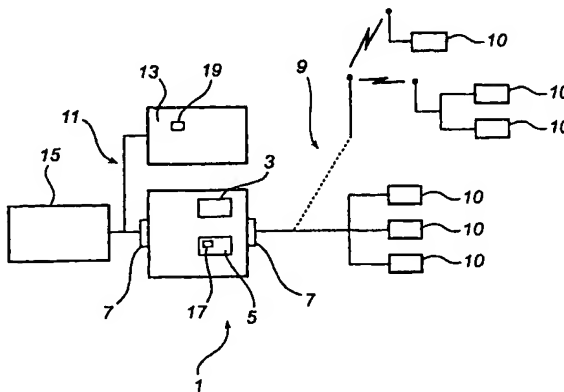
(57) Abstract: The present invention relates to a device (1) for automatically generating a game result based on at least one weather condition at at least one geographic location at at least one predetermined point or interval in time. The device (1) comprises a processor (3), a memory (5) and communication capabilities (7). The communication capabilities (7) are connectable to a first communication means (9) associated with at least one weather parameter indication arrangement (10) which is located at the at least one location and for indicating the at least one weather condition. The communication capabilities (7) are also connectable to a second communication means (11) associated with at least one of a game computer (13) and the game result indication means (15). The processor (3) is configured for receiving at least one weather data item from the at least one weather parameter indication arrangement (10) at the at least one predetermined point in time, generating the game result by relating the at least one weather data item to a weather game type reference system (15) arranged in the memory (5); the weather game type reference system (17) defining the game; and transmitting the game result to at least one of the game computer (13) and the game result indication means (15), according to the weather game type reference system (17), for indicating the game result.

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DEVICE FOR AUTOMATICALLY GENERATING A GAME RESULT BASED ON AT LEAST ONE WEATHER CONDITION

5   TECHNICAL FIELD

The present invention relates to a device for automatic generating a game result based on at least one weather condition at at least one geographic location at at least one predetermined point in time.

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TECHNICAL BACKGROUND

Games and lotteries have for long time been a part of society. The advances in the field of information

15   technology have lead to increased opportunities in the field of games. Today it is possible to game, or bet, on a wide variety of events such as sports results, president elections, and winners of music contests. Also, it is possible to bet on future weather. For instance, it

20   may be possible to bet on cloudy weather during a weekend. Betting on weather conditions has so far been limited by the rather slow providing of the actual weather conditions to players. Also, there is a risk of players not sharing the same view of the weather

25   condition as the organiser of the game, since the opportunities of a player to verify a weather condition communicated by the game organiser are limited. Also, the fact that the game organiser decides the weather condition related to a game may cause concern among

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players. This results in that there is an uncertainty as to playing games based on weather conditions.

5   SUMMARY OF THE INVENTION

The purpose of the present invention is to alleviate the limitations in the art as described above. The present invention relates to a device for automatically generating a game result based on at least one weather

10' condition at at least one geographic location at at least one predetermined point in time. The device comprises a processor, a memory and communication capabilities. The communication capabilities are connectable to a first communication means associated with at least one weather

15 parameter indication arrangement located at the at least one location. The purpose of the weather parameter indication arrangement is to indicate the at least one weather condition. The communication capabilities are connectable to a second communication means associated

20 with at least one of a game computer and the game result indication means. The processor is configured for receiving at least one weather data item from the at least one weather parameter indication arrangement at the at least one predetermined point or interval in time,

25 using the first communication means. The processor is further configured for generating the game result by relating the at least one weather data item to a weather game type reference system arranged in the memory, where the weather game type reference system defines the game.

30 Also, the processor is configured for transmitting the game result to at least one of the game computer and the game result indication means, according to the weather game type reference system, for indicating the game

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result. The weather data item comprises data related to a
weather parameter, which is related to a weather
condition. Thus, a weather condition is constituted by
one or a combination of weather parameters. The game type
5   reference system comprises information concerning one or
more games. Information concerning what weather data
items and what weather parameters that constitutes a game
are included in the game type reference system. One
advantage offered by the present invention is that the
10   gathering and generating of the game result is highly
automatic and is therefore not time consuming. Another
advantage is that it is possible to play on weather
conditions at a plurality of locations, when using the
present invention.
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In one embodiment the weather indication arrangement
comprises at least one of a camera for providing a
weather indicating image, a humidity sensor, a
thermometer, a light intensity indicator, a rain gauge, a
20   lightening indicator, an atmospheric pressure indicator,
and a wind indicator. The various types of weather
indication arrangements presented here are arranged to
provide a physical output indicating the weather within
the framework of a game, e.g. a light sensitivity
25   indicator indicating a light sensitivity below a
predetermined level indicates the weather condition
'cloudy' and a light sensitivity indicator indicating a
light sensitivity exceeding a predetermined level
indicates the weather condition 'sunny'. Using a weather
30   indication arrangement leads to a game result that is
more difficult to question by players since the
possibilities for a game organiser to tamper with the
weather readings is made difficult. The present invention

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does not require that a person reads a weather indication
and then communicates his/hers interpretation of that
indication. Thus, the present invention alleviates the
indication interpretation problem and the game organiser
5   indication-tampering problem.

According to an embodiment, when there is a plurality of
weather data items, the processor is further configured
for selecting weather data items from the plurality of
10   data weather items according to the game type reference
system. This offers the advantage of opening up for
dynamic games where weather data items can be used in
different games.

15   According to an embodiment, the generating of the game
result is performed in relation to the predetermined
point in time. This offers the advantage of being able to
communicate the game result to players shortly after the
weather indication(s) constituting the game having been
20   received by the processor.

According to an embodiment, the second communication
means is constituted by the first communication means.

25   According to an embodiment, the first communications
means is constituted by at least one of wireless and
wired communication and the second communications means
is constituted by at least one of wireless and wired
communication.
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According to an embodiment, the at least one weather
parameter indication arrangement is at least one of 1)
movable, 2) remotely located in relation to the device,

and 3) locally located in relation the device. A weather
parameter indication arrangement being movable offers the
advantage that the locations of weather parameter
indication arrangements may be selected more freely. This

5   also requires updating the game type reference system.
This results in a more dynamic game. A weather parameter
indication arrangement that is remotely located in
relation to the device offers the advantage that it is
possible to include locations that are remote in the

10   game. This also requires updating the game type reference
system. This results in a more dynamic game. A weather
parameter indication arrangement that is locally located
in relation the device offers the advantage that it is
possible to use the game locally, for instance in a city

15   using a number of weather parameter indication
arrangements in the game.

This also requires updating the game type reference
system. This results in a more dynamic game. Thus, this

20   offers the opportunity of incorporating weather
conditions from a city, a country, or a continent.

According to an embodiment, the game result indication
means is one of 1) remotely located in relation to the

25   device, and 2) locally located in relation the device.
This offers the advantage of being able to offer an
opportunity to the game organiser to either present the
game result locally or widely, for instance to present a
game result in a city, a country, or a continent.

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According to an embodiment, the game result indication
means is constituted by at least one of a television, a
computer, an information screen, a phone, a printing

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device and a personal digital assistant. This offers the
advantage to the game organiser of having increased
opportunities of allowing games to be played. In an
embodiment the computer is connected to the internet.

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In an embodiment, the device is incorporated in the game
computer.

10   A BRIEF DESCRIPTION OF THE DRAWING
     In Figure 1 a schematic representation of the invention
     and its operative surroundings is presented.

15   DESCRIPTION OF PREFERRED EMBODIMENTS
     In Figure 1 an embodiment of the device 1 for
     automatically generating a game result is presented. The
     game result is arranged to be based on at least one
     weather condition at at least one geographic location at
20   at least one predetermined point or interval in time. The
     device 1 comprises a processor 3, a memory 5 and
     communication capabilities 7. The communication
     capabilities 7 are connectable to a first communication
     means 9 to at least one weather parameter indication
25   arrangement 10 located at the at least one location and
     for indicating the at least one weather condition. The
     communication capabilities 7 are connectable to a second
     communication means 11 to at least one of a game computer
     13 and the game result indication means 15.

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     The processor 3 is configured for receiving at least one
     weather data item from the at least one weather parameter
     indication arrangement 10 at the at least one

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predetermined point in time, using the first

communication means 9. The data item may be transmitted

in one of digital and analogous manners. After having

received the at least one weather data item the processor

5   3 is further configured for generating the game result by

relating the at least one weather data item to a weather

game type reference system 17 arranged in the memory 5,

where the weather game type reference system 17 defines

the game. The processor 3 is further configured for

10   transmitting the game result to at least one of the game

computer 13 and the game result indication means 15,

according to the weather game type reference system 17,

for indicating the game result. In an embodiment, the

processor 3 is also configured for storing the game

15   result in a database located either in the memory 5 of

the device 1 or in a memory 19 of the game computer 13.

In an embodiment, when there is a plurality of weather

data items, the processor 3 is further configured for

20   selecting weather data items from the plurality of data

weather items according to the game type reference system

17. This selecting feature of the device 1 is central

when the device 1 is responsible for handling a plurality

of games in the weather game type reference system 17. In

25   an embodiment the generating of the game result is

performed in relation to the predetermined point in time.

In an embodiment the second communication means 11 is

constituted by the first communication means 9. In an

embodiment the first communications means 9 is

30   constituted by at least one of wireless and wired

communication and the second communications means 11 is

constituted by at least one of wireless and wired

communication. In an embodiment the weather parameter

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indication arrangement 10 comprises at least one of a
camera for providing a weather indicating image, a
humidity sensor, a thermometer, a light intensity
indicator, a rain gauge, a lightening indicator, an
5   atmospheric pressure indicator, and a wind indicator. In
an embodiment, the at least one weather parameter
indication arrangement 10 is at least one of movable,
remotely located in relation to the device 1, and locally
located in relation the device 1. In an embodiment, the
10   game result indication means 15 is one of remotely
located in relation to the device 1, and locally located
in relation the device 1.. In an embodiment, the game
result indication means 15 is constituted by at least one
of a television, a computer, which may be associated with
15   the internet, an information screen, a phone, a printing
device and a personal digital assistant. In an
embodiment, the device 1 is incorporated in the game
computer 13. In general, the weather parameter indication
arrangements 10 are arranged to output indications of
20   present weather parameters covering specific weather
conditions. The processor 3 is arranged to receive
weather data items originating from the weather parameter
indication arrangement 10.

25   The weather parameter indication arrangements 10 are
arranged for interpreting their readings by dividing them
into a predetermined set of alternatives. Alternatively
the interpretation may instead be arranged to be done by
the processor 3 by comparing the received data items to a
30   comparative index related to weather parameters. In the
table below, weather parameter indication arrangements 10
and non limiting examples of their output spectrum are
presented.

Weather parameter indication arr.	Non limiting examples of their output spectrum
A humidity sensor	$< H_1$ % => 'Dry at sampling time'
	$> H_1$ % and $< H_2$ % => 'Humid at sampling time'
	$> H_2$ % => 'Rain at sampling time'
A thermometer	$< T_1$ => 'Below T_1 at sampling time'
	$> T_1$ => 'Above T_1 at sampling time'
	T (the temperature measurement itself)
A light intensity indicator	$< X_1$ => 'Dark at sampling time'
	$> X_1$ and $< X_2$ => 'Cloudy at sampling time'
	$> X_2$ => 'Sunny at sampling time'
A rain gauge	$< Z_1$ mm => 'No rain during time interval'
	$> Z_1$ mm =>'Rainy during time interval'
	Z (the rain measured in e.g. mm) 'Yes' or 'No'
A lightening indicator	$< N_1$ => 'Limited lightening'
	$> N_1$ => 'Lightening Numbers of flashes/lightening
An atmospheric pressure indicator	$< P_1$ => 'Below P_1 at sampling time'
	$> P_1$ => 'Above P_1 at sampling time'
A wind indicator	$< W_1$ => 'Not windy at sampling time
	$> W1$ => 'Windy at sampling time'
	$> W_2$ => 'Very windy at sampling time'
	W (the wind indication itself)

From the table it is clear that the output spectrum can
comprise both a logic output (e.g. 'Dry at sampling

time') and a number indicating the corresponding weather
condition parameter (e.g. the temperature).

By combining weather parameter indication arrangements
5   10, their locations and the points or time interval, it
is possible to support to a high number of games.

In an illustrative embodiment, the weather parameter
indication arrangement 10 is constituted by a light
10   intensity indicator and the weather game type reference
system 17 arranged with the following characteristics.

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< 5 W/m² => 'Cloudy'
Between 5 and 120 W/m² => 'Semi
cloudy and semi sunny'
> 120 W/m² => 'Sunny'
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Assuming that the locations are London, Cairo, and Paris,
15   at which locations weather parameters indicator
arrangements 10, in this example light sensitivity
indicators, are arranged. The time is set to 12.00 CET.
The device is located in Berlin. Thus the three
indicators 10 are remotely arranged. The operation of the
20   device 1 according to this embodiment is as follows. The
device 1 will prompt the light sensitivity indicators and
there from receive shortly after 1200 CET weather data
items comprising numbers of Watts per square meter from
the three indicators 10, using the first communication
25   means 9. Assuming that the readings from the indicators
10 are, London: 3, Cairo: 112, and Paris 130, then the
device 1 would generate the following game result.

London: 'Cloudy'
Cairo: 'Semi cloudy and semi sunny'
Paris: 'Sunny'

Also in this embodiment, there are cameras in the three cities for providing a weather indicating image. The images are also transmitted using the first communication means 9 to the device 1. After having generated the game result it is transmitted to a game computer 13 and a game result indication means 15, using the second communication means 11. In this case the game result indication means 15 is constituted by a television via a television broadcast network.

In another illustrative embodiment, there are three weather parameter indication arrangements 10: A thermometer, a wind indicator, and a humidity sensor. In this embodiment the weather game type reference system 17 is as follows.

Weather condition	Output spectrum
Temperature	< 20 degree Centrigrade => 'Warm'
	> 20 degrees Centrigrade => 'Cold'
Wind	< 1 m/s => 'No wind'
	> 1 m/s => 'Windy'
Humidity	< 40 % =>'Dry during sampling time'
	> 80 % => 'Rain during sampling time'

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The sampling time is an interval starting at 11.00 and
ending at 12.00. The three weather parameter indication
arrangements 10 at the same location provide the
following readings to the device 1 using the first
5   communication means 10: Temperature: 18 degrees
Centigrade, Wind: 3 m/s, and Humidity: 100%. The game
result, as generated by the device 1, is 'Cold', 'Windy',
and 'Rain'. The game result is transmitted to a game
computer 13, which is arranged to keep track of game
10   related information, such as odds and game turnover. The
game result is also transmitted to a game result
indication means 15 in the form of a presentation screen
for providing information concerning the game result.

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PATENT CLAIMS

1. Device (1) for automatically generating a game result based on at least one weather condition at at least one geographic location at at least one predetermined point
5   or interval in time, the device (1) comprising a processor (3), a memory (5) and communication capabilities (7),
    -the communication capabilities (7) being connectable to a first communication means (9) associated with at least
10 one weather parameter indication arrangement (10) located at the at least one location and for indicating the at least one weather condition;
    -the communication capabilities (7) being connectable to a second communication means (11) associated with at
15 least one of a game computer (13) and the game result indication means (15);
    the processor (3) being configured for
    -receiving at least one weather data item from the at least one weather parameter indication arrangement (10)
20 at the at least one predetermined point in time, using the first communication means (9);
    -generating the game result by relating the at least one weather data item to a weather game type reference system (15) arranged in the memory (5); the weather game type
25 reference system (17) defining the game; and
    -transmitting the game result to at least one of the game computer (13) and the game result indication means (15), according to the weather game type reference system (17), for indicating the game result.

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2. Device according to claim 1, wherein, when there is a plurality of weather data items, the processor (3) is further configured for
-selecting weather data items from the plurality of data
5   weather items according to the game type reference system (17).

3. Device according to claim 1, wherein the generating of the game result is performed in relation to the
10   predetermined point in time.

4. Device according to claim 1, wherein the second communication means (11) is constituted by the first communication means (9).
15

5. Device according to claim 1, wherein the first communication means (9) is constituted by at least one of wireless and wired communication and the second communication means (11) is constituted by at least one
20   of wireless and wired communication.

6. Device according to claim 1, wherein the weather parameter indication arrangement (10) comprises at least one of a camera for providing a weather indicating image,
25   a humidity sensor, a thermometer, a light intensity indicator, a rain gauge, a lightening indicator, an atmospheric pressure indicator, and a wind indicator.

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7. Device according to claim 1, wherein the at least one weather parameter indication arrangement (10) is at least one of:

    -movable;

5   -remotely located in relation to the device (1); and
        -locally located in relation the device (1).

8. Device according to claim 1, wherein the game result indication means (15) is one of

10   -remotely located in relation to the device (1); and
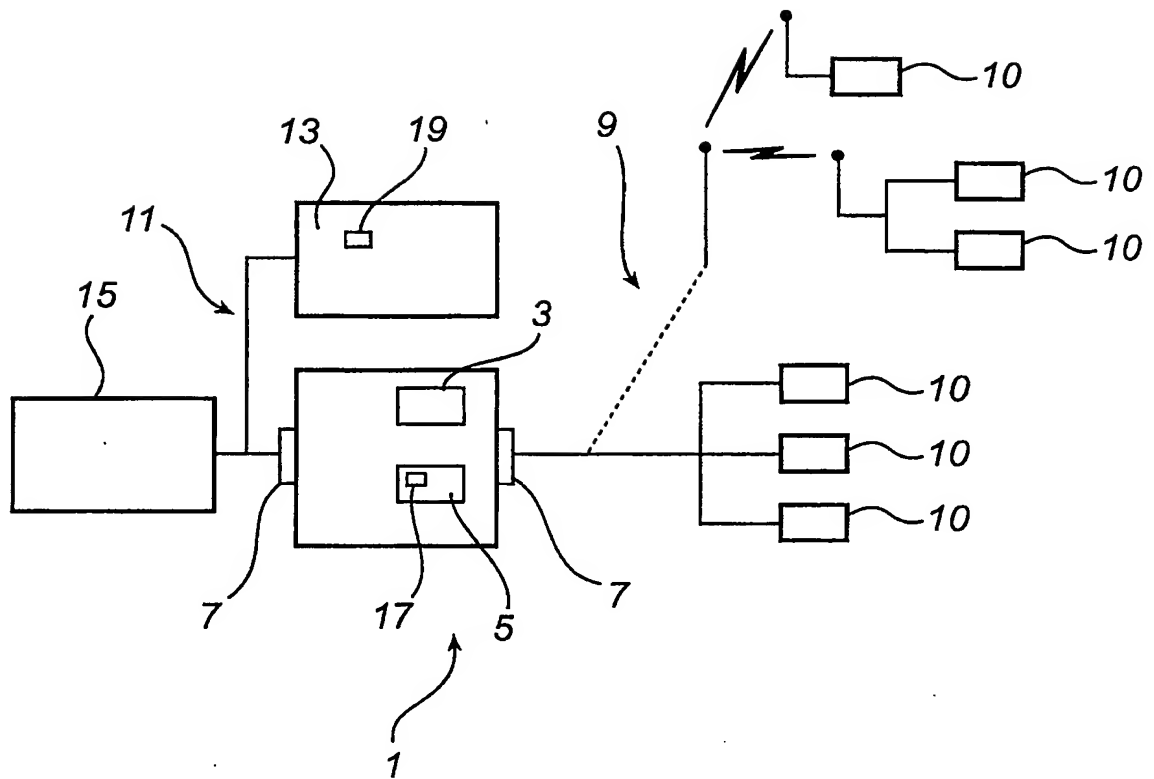   -locally located in relation the device (1).

9. Device according to claim 1, wherein the game result indication means (15) is constituted by at least one of a

15 television, a computer, an information screen, a phone, a printing device and a personal digital assistant.

10. Device according to claim 1, wherein the device (1) is incorporated in the game computer (13).

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Fig. 1

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 2003/001968

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: A63F 13/12, G06F 17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: A63F, G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,A	EP 1270051 A2 (KONAMI COMPUTER ENTERTAINMENT), 2 January 2003 (02.01.2003) --	1-10
A	US 5920827 A (BAER ET AL), 6 July 1999 (06.07.1999) --	1-10
A	US 5575474 A (ROSSIDES), 19 November 1996 (19.11.1996) -- --------	1-10

☐ Further documents are listed in the continuation of Box C.   ☒ See patent family annex.

*	Special categories of cited documents:
"A"	document defining the general state of the art which is not considered to be of particular relevance
"E"	earlier application or patent but published on or after the international filing date
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O"	document referring to an oral disclosure, use, exhibition or other means
"P"	document published prior to the international filing date but later than the priority date claimed

"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X"	document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y"	document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&"	document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
9 March 2004	1 0 -03- 2004

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